## Patent Claims

- 1. An object of value with a security element, wherein the security element has at least one liquid-crystalline material, characterized in that the liquid-crystalline material effects a linear polarization of light.
- 2. The object of value according to claim 1, characterized in that the liquidcrystalline material is formed by a lyotropic liquid crystal.
- 3. The object of value according to claim 1 or 2, characterized in that the liquid-crystalline material has a layer thickness of 100 to 1000 nanometer.
- 4. The object of value according to any of claims 1 to 3, characterized in that the liquid-crystalline material is applied all-over or in certain areas, in particular in the form of alphanumeric characters and/or patterns, the liquid-crystalline material in particular effecting a locally different polarization.
- 5. The object of value according to any of claims 1 to 4, characterized in that the liquid-crystalline material is applied onto a background, which has patterns and/or characters.
- 6. The object of value according to claim 5, characterized in that the background is printed, is produced by inking a substrate or with the help of a laser.
- 7. The object of value according to any of claims 1 to 6, characterized in that the liquid-crystalline material, the background and/or a further layer has properties testable by machine and/ or visually testable.
- 8. The object of value according to any of claims 1 to 7, characterized in that the security element is a label.
- 9. The object of value according to any of claims 1 to 8, characterized in that the object of value is a security paper, a security document or a product packaging.

- 10. The object of value according to any of claims 1 to 9, characterized in that the security element has at least one further layer producing optical effects and/ or a protection layer, which cover at least a part of the security element.
- 11. A security element for protecting objects of value, wherein the security element has at least one liquid-crystalline material, characterized in that the liquid-crystalline material effects a linear polarization of light.
- 12. The security element according to claim 11, characterized in that the liquid-crystalline material is formed by a lyotropic liquid crystal.
- 13. The security element according to claim 11 or 12, characterized in that the liquid-crystalline material has a layer thickness of 100 to 1000 nanometer.
- 14. The security element according to any of claims 11 to 13, characterized in that the liquid-crystalline material is applied all-over or in certain areas, in particular in the form of alphanumeric characters and/or patterns.
- 15. The security element according to any of claims 11 to 14, characterized in that the carrier of the liquid-crystalline material is a birefringent foil with predetermined phase shift, in particular of a quarter wave or half wave.
- 16. The security element according to any of claims 11 to 15, characterized in that the security element has at least one further layer producing optical effects and/ or a protection layer, which cover at least a part of the security element.
- 17. The security element according to any of claims 11 to 16, characterized in that the security element is a security thread, a lookthrough register or a planchet.
- 18. A transfer material for producing a security element, characterized in that the transfer material has a carrier material, on which is disposed at least one liquid-crystalline material, wherein the liquid-crystalline material is formed by a lyotropic liquid crystal.

- 19. The transfer material according to claim 18, characterized in that the carrier material is formed as a hot stamping foil.
- 20. A method for producing an object of value or security element, characterized in that
  - a substrate is provided,
  - onto this substrate at least one lyotropic liquid-crystalline material is applied.
- 21. The method according to claim 20, characterized in that the at least one lyotropic liquid-crystalline material is present in a solution, which under the exertion of directed shearing force is applied onto the substrate, and that a solvent forming the solution is removed.
- 22. A method for testing an object of value, characterized in that there is checked,
  - whether light is linearly polarized and/ or
  - whether the light has a color effect and/or
  - whether a depolarization of the polarized light and/or a not taking place of the color effect occurs when the light passes through the bank note substrate.
- 23. The method according to claim 22, wherein light diffusely reflected and/or transmitted by the object of value is checked.